

REMARKS

Reconsideration and allowance are respectfully requested. Claims 1-48 are currently pending in the application.

A complete set of the claims as pending has been submitted in the enclosed Appendix as requested by the Examiner.

Applicants acknowledge the submittal of informal drawings. Formal drawings will be submitted upon receipt of a Notice of Allowance.

The Office Action indicated that attached thereto was a form PTO-1449; however, none was received with the Office Action. It is kindly requested that the Examiner please return an initialed copy of the PTO-1449 form so that Applicants may complete their file.

Claims 23-48 were rejected and the specification was objected to under 35 U.S.C. § 112, first paragraph, as allegedly the specification, as originally filed, did not provide support for the invention as it is now claimed. This rejection is respectfully traversed for at least the following reasons.

The Action states as to claim 23 "The original specification fails to disclose the claim limitation that a residual signal produced from the signals transmitted by the first base station is processed to determine the strength of a signal transmitted by a second base station as recited at lines 6-12." Applicants respectfully submit that this is described in the specification on pages 5-8. It should be noted that the present invention is described in the context of a subtractive CDMA demodulation system which is described in U.S. Patent No. 5,151,919 which is incorporated by reference into the application.

Page 6 specifically outlines the general arrangement of an exemplary transmitter and use of signal strength decoding.

Further specifics of the signal strength monitoring are outlined in the '919 patent and, starting at column 6, line 50, through column 7, the use of the residual signal in determining signal strength is specifically described. In addition, on pages 7 and 8 of the specification, and more specifically page 8, starting at line 26, wherein, "When the mobile receiver detects from the relative signal strengths that is nearing the point where handover might be appropriate, the base station is informed by data message from the mobile station about the other base stations the mobile station can hear and their relative signal strengths." It is therefore submitted that adequate support description is given for claim 23 in the specification.

The Action states that, as to claims 28 and 40, the phrase "paging messages" is unsupported. By way of the foregoing amendments, the word "paging" has been changed to "calling" which term is used in describing paging operations in the disclosure incorporated by reference at page 7, line 16 of the present application (which disclosure is now U.S. Patent No. 5,377,183).

The Action states as to claims 35 and 46, "The original specification fails to disclose the handover command which identifies at least one other base station on which said signal strength measurements are to be performed." In addition to the language already cited from pages 5-8, support for this limitation can be found at claim 12, line 5, wherein it states "These messages indicate to the control processor 23 whether the mobile station shall operate in normal mode, (i.e., decoding traffic and

messages from the current base station only, whether it shall operate in diversity mode, (i.e., decoding messages and traffic based on data received from the current base station and another base station)."

The Action states as to claim 36 that the original specification fails to disclose the claim limitations directed to "a composite signal comprised of a pilot signal and traffic signals from the base stations," "demodulating at said mobile station said pilot signals and said traffic signals transmitted by said base stations in order of strongest to weakest signal strength based on a historical signal strength." Applicants draw attention to page 7, beginning at line 12, stating "Moreover, one of the traffic ID codes can be reserved in each cell for use as a broadcast channel, calling channel or pilot channel." As mentioned above, the use of a calling channel or a pilot channel is described in U.S. Patent No. 5,377,183 which is incorporated by reference into the instant application. In the '183 patent at column 4, beginning at line 40, the composite signal comprised of pilot signal and traffic signals from the base stations is described. Included in the demodulating of the pilot signal and traffic signals in order of strongest to weakest signal strength is described at page 6 of the instant application and column 5 of the '183 patent. In addition, measuring signal strength based on historical signal strength is recited in the '919 patent at column 7, specifically beginning at line 50, wherein it states "because the signal strengths of the multiple mobile stations in a cell are constantly varying, a further embodiment of the present invention utilizes linear predictive analysis (LPA) to reorder the signal strength priority. In general terms, a historical model of the relative signal

strengths are stored in a memory and used to extrapolate which signal is most likely to have the greatest strength in the next instant in time."

The Action states as to claim 48, that "The original specification fails to disclose the claim's limitation of the pilot signals transmitted by each base station are stronger than the traffic signals transmitted by the same base stations." Support for this recitation can be found at page 7, stating in reference to the pilot signal "The signal using this code is always the strongest signal so the mobile receiver knows it shall attempt decoding of that signal before any other signals of the same cell."

It is therefore respectfully submitted that the claims 23-48 have adequate support in the instant disclosure as required under the statutes and that the objection to the specification and rejection of claims 23-48 should be reconsidered and withdrawn.

Claims 14 and 15 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 5,267,261 to Blakeney et al. ("Blakeney"). This rejection is respectfully traversed for at least the following reasons.

Applicants' claim 14 combination includes, among other things, the generation of a demodulated signal associated with each of a first base station and a second base station, i.e., two demodulated signals. By way of contrast, Blakeney discloses the provision of a single demodulated signal produced by diversity combining the signals received from two base stations. See Blakeney at col. 11, lines 6-8.

In the remarks section of the Office Action, it is asserted that "Blakeney does disclose decoding the numerical values using the first and second codes to obtain demodulated data signals received from the first and second base stations". Apparently,

the Examiner is asserting that plural demodulated signals are being generated by virtue of the ongoing operation of the Blakeney system, i.e., first one demodulated signal is generated based on inputs from both base stations, then a second demodulated signal is generated based on inputs from both base stations. To clarify this exemplary distinction, claim 14 has been amended to more positively recite that a separate demodulated signal is generated for each of the first and second base stations, which is clearly not the case in Blakeney.

With respect to Applicants' claim 15 combination, the Office Action points to column 19, lines 24-42 as allegedly teaching that Applicants' claimed first and second codes include a base station code and a traffic channel code. While this portion of Blakeney does refer generically to "base station identifications", it does not do so in the context of codes which are "used to process and decode numerical values to obtain demodulated signals" as are Applicants' claimed first and second codes. That is, the cited portion of Blakeney does not indicate that the base station identifications are used in the same manner as Applicants' claimed first and second codes and, therefore, cannot be said to correspond thereto.

For at least the foregoing reasons, Applicants respectfully submit that claims 14 and 15 are not anticipated by Blakeney.

Claims 2, 7-9 and 16-22 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Blakeney in view of U.S. Patent No. 5,151,919 to Dent. This rejection is respectfully traversed for at least the following reasons.

Since U.S. Patent 5,151,919 to Dent was copending with the present application and includes a common inventor, it is appropriate for Applicants to claim priority from this application pursuant to 35 U.S.C. §120. Submitted herewith is an unexecuted Declaration which has been sent to Sweden to obtain the signatures of the inventors residing in that country and which provides for priority from the earlier filed application. The executed copy will be forwarded to the Patent Office upon receipt.

Since the present application now claims priority from the application which became U.S. Patent No. 5,151,919 to Dent, this patent is no longer applicable as prior art against the present application. Accordingly, this ground of rejection has been rendered moot.

Claims 1, 3-6, and 10-13 were rejected under 35 U.S.C. § 103 as being unpatentable over Blakeney. This rejection is respectfully traversed for at least the following reasons.

Again, the Office Action appears to gloss over a fundamental difference between the disclosure of Blakeney and the claimed combinations. According to Applicants' claim 1 combination, the step of "...decoding said signals using said first and second codes to produce a first and a second demodulated signal" is performed. **This step is not performed nor is it suggested by Blakeney.**

As mentioned above, Blakeney performs diversity combining **as part of** demodulating the signal. Thus, only a single demodulated signal results. Note, for example, column 11, line 6 "The data demodulation process uses information from both of theses receivers in a diversity combining operation." Also note column 11, lines 51-

56, "The mobile station performs diversity combining of the signals received from the two base stations. The cell diversity mode generally continues for as long as signals received from both base stations are of a level sufficient to permit good quality demodulation" (emphasis added), which implies that combining occurs before or in tandem with demodulation.

With respect to Applicants' claim 3 combination, note the discussion of claim 15 above. No disclosure of the claimed codes is provided in Blakeney which are used to perform the function set forth for those codes in Applicants' claim 3 combination.


Claims 10-13 are believed to be allowable for similar reasons to those set forth above with respect to claims 1 and 14, for example.

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Having addressed all the Examiner's concerns and rejections, it is respectfully submitted that the application is now in condition for allowance, and that an early Notice of Allowance is respectfully solicited. If any questions remain, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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